

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>P64658WO00</b>	<b>FOR FURTHER ACTION</b>		see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. <b>PCT/GB2005/000033</b>	International filing date (day/month/year) <b>07/01/2005</b>	(Earliest) Priority Date (day/month/year) <b>07/01/2004</b>	
Applicant  <b>SOLEXA LIMITED</b>			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☒ **Unity of invention is lacking** (see Box III).

**4. With regard to the title,**

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

**MODIFIED MOLECULAR ARRAYS**

**5. With regard to the abstract,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. With regard to the drawings,**

a. the figure of the **drawings** to be published with the abstract is Figure No. \_\_\_\_\_

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

## INTERNATIONAL SEARCH REPORT

International Application No

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## Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 858 653 A (DURAN ET AL) 12 January 1999 (1999-01-12) column 2, line 45 - line 60; examples 9,10 -----	1,17
P,X	WO 2004/073843 A (MCMASTER UNIVERSITY; CHILDS, RONALD, F; FILIPE, CARLOS; GHOSH, RAJA; M) 2 September 2004 (2004-09-02) claim 21 -----	1,17
X	WO 02/059372 A (BIOCEPT INC ; DONG XIAOFAN (US); FAGNANI ROBERTO (US); HAHN SONNKAP (U) 1 August 2002 (2002-08-01) page 21, line 14 - line 30; claims 25-37 -----	37-56
X	US 5 948 621 A (GABER BRUCE P ET AL) 7 September 1999 (1999-09-07) column 8, line 7 - line 22 -----	37-56
X	WO 99/61653 A (ZEBALA JOHN A ; SYNTRIX BIOCHIP (US)) 2 December 1999 (1999-12-02) page 36, line 23 - line 24; figures 1,2 -----	1,51,54
X	US 6 077 674 A (TOM-MOY MAY ET AL) 20 June 2000 (2000-06-20) column 12, line 34 - line 41; claim 1 -----	1,51,54
A	KARTALOV ET AL.: "Polyelectrolyte Surface Interface for Single-Molecule Fluorescence Studies of DNA Polymerase" BIOTECHNIQUES, vol. 34, no. 3, 2003, pages 505-510, XP002310467 cited in the application the whole document -----	37-56

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**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 B01J19/00 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01J C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/23082 A (NANOGEN, INC) 5 April 2001 (2001-04-05) page 13 - page 17; claims 1-66; figure 18; examples 2,3,5	1-36, 51-60
X	WO 00/31148 A (MOTOROLA, INC; MCGOWEN, JOHN, A; BEUHLER, ALLYSON, J) 2 June 2000 (2000-06-02) cited in the application page 6, line 2 - line 11; examples 2,3 page 7, line 7 - line 20	1-18, 57-60
X	WO 01/01143 A (MOTOROLA INC; JOHNSON, TRAVIS; MCGOWEN, JOHN; BEUHLER, ALLYSON; BRUSH,) 4 January 2001 (2001-01-04) cited in the application page 1 - page 2, line 27; claims 1-34; examples 3,8	1-36, 51-60
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

8 April 2005

Date of mailing of the international search report

18/04/2005

Name and mailing address of the ISA

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-36,51-56 (in part),57-60

Method of preparing a specific hydrogel immobilized to a solid support.

Solid supported hydrogel prepared according to method.

Methods of preparing molecular array.

Molecular array and use thereof

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2. claims: 37-50,51-56 (in part)

Method of modifying a molecular array.

Molecular array.

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## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2005/000033

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0123082	A	05-04-2001	AU 7730500 A CA 2386622 A1 EP 1221050 A2 JP 2003510584 T WO 0123082 A2	30-04-2001 05-04-2001 10-07-2002 18-03-2003 05-04-2001
WO 0031148	A	02-06-2000	US 2002035167 A1 AU 2028500 A WO 0031148 A2 US 2002115740 A1	21-03-2002 13-06-2000 02-06-2000 22-08-2002
WO 0101143	A	04-01-2001	US 6372813 B1 AT 276516 T AU 768326 B2 AU 5636200 A CA 2378072 A1 DE 60013826 D1 EP 1190254 A2 JP 2003524150 T WO 0101143 A2 US 2002146730 A1 US 2003096265 A1 US 2003124525 A1 US 2003078314 A1	16-04-2002 15-10-2004 11-12-2003 31-01-2001 04-01-2001 21-10-2004 27-03-2002 12-08-2003 04-01-2001 10-10-2002 22-05-2003 03-07-2003 24-04-2003
US 5858653	A	12-01-1999	AU 737391 B2 AU 9582898 A CA 2304362 A1 DE 69828625 D1 EP 1019424 A2 JP 2001518604 T WO 9916907 A2 US 2003148308 A1 US 2001014448 A1 US 2003113792 A1 US 2004209305 A1	16-08-2001 23-04-1999 08-04-1999 17-02-2005 19-07-2000 16-10-2001 08-04-1999 07-08-2003 16-08-2001 19-06-2003 21-10-2004
WO 2004073843	A	02-09-2004	WO 2004073843 A1 US 2004203149 A1	02-09-2004 14-10-2004
WO 02059372	A	01-08-2002	EP 1328810 A2 JP 2004518138 T WO 02059372 A2 US 2005037343 A1	23-07-2003 17-06-2004 01-08-2002 17-02-2005
US 5948621	A	07-09-1999	NONE	
WO 9961653	A	02-12-1999	AU 4218499 A WO 9961653 A2 US 6159681 A AU 1831700 A EP 1163374 A2 JP 2002531470 T WO 0033084 A2 AT 290038 T AU 3104300 A DE 69924034 D1 EP 1179028 A1	13-12-1999 02-12-1999 12-12-2000 19-06-2000 19-12-2001 24-09-2002 08-06-2000 15-03-2005 19-06-2000 07-04-2005 13-02-2002

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2005/000033

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9961653	A	JP 2002531615 T	24-09-2002
		WO 0032678 A1	08-06-2000
		US 2003064316 A1	03-04-2003
		AU 1745200 A	19-06-2000
		EP 1163520 A1	19-12-2001
		JP 2002531829 T	24-09-2002
		WO 0033078 A1	08-06-2000
US 6077674	A	20-06-2000	
		DE 60007498 D1	05-02-2004
		DE 60007498 T2	16-09-2004
		EP 1095698 A2	02-05-2001